



FISCAL YEAR 1997

**ENVIRONMENTALLY PREFERABLE PRODUCT
PILOT PURCHASE PROGRAM**

FINAL REPORT

OPERATIONAL SERVICES DIVISION

JULY 1998

The Pilot Purchase Program is Coordinated by:

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Funding for the Pilot Purchase Program is Provided by:

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I. SUMMARY AND BACKGROUND

In Fiscal Year 1997 (July 1, 1996 - June 30, 1997), the Operational Services Division (OSD) utilized approximately \$40,000 in funding from the Executive Office of Environmental Affairs (EOEA) Clean Environment Fund to purchase and test environmentally preferable products throughout the state. The objective of the program, in its second year, is to simultaneously gather information about and promote acceptance of environmentally preferable products that have potential widespread application within the state. A joint working group of OSD, EOEA, and Department of Environmental Protection (DEP) staff planned and implemented the program. Ultimately, the products were purchased in eight major categories, which were distributed to a multitude of end users, including both state and municipal facilities.

II. PRODUCT SELECTION CRITERIA

OSD, EOEA, and DEP targeted products that demonstrated environmental characteristics such as recycled content, low toxicity, resource efficiency and waste reduction. In addition to these general criteria, other criteria included one of the following:

- *products that were not already in widespread use by state agencies but had such potential*
- *products not on state contract because of the need to be tested and evaluated*
- *products that were meeting resistance from purchasers*
- *new or innovative products that have not undergone testing*

In order to qualify for selection, products had to meet at least one, and preferably more than one, of the above criteria. Using this set of criteria, the working group selected the following product categories for testing during Fiscal Year 1997:

- recycled paint
- plastic lumber products for decking and fencing
- recycled plastic hand and foot basins for medical facilities
- recycled plastic chock blocks
- recycled copy paper and envelopes
- recycled rubber matting and flooring
- recycled plastic playground equipment

* please see Summary of Spending by Category for financial details

III. FACILITY IDENTIFICATION

OSD conducted a number of *Buy Recycled* workshops during 1996 and 1997. During these workshops, participants received information about the basics of environmental procurement as well as the opportunity to participate in the Pilot Purchase Program. As a result of this outreach, as well as “word of mouth” endorsements from FY 1996’s participants, the working group received dozens of requests for products from a diversity of agencies. The working group then had to decide what products would go to which facilities, and how the products were to be distributed. For many product categories, the working group identified an appropriate agency or community group to distribute the products to end users. This approach aimed to eliminate many of the administrative costs and time burdens that complicated the Fiscal Year 1996 program, but still allowed for a large quantity of products to be tested by a variety of users. In FY 97, two such groups were identified:

- The **Chelsea Center for Recycling and Economic Development** distributed 675 recycled plastic soaking basins to 7 medical facilities, and 132 recycled plastic chock blocks to 12 public works and transportation departments.
- The **South Central Recycling Association of Massachusetts**, SCRAM, distributed 50 cases of recycled copy paper and envelopes to 17 municipalities and schools.

For all other products, which had a relatively smaller number of final recipients, OSD arranged for distribution directly. Facilities and municipalities who received products directly from OSD included:

- City of Waltham - plastic lumber decking for foot bridge
- Dept. of Environmental Management (DEM) - Harold Parker State Forest - recycled paint
- DEM- Heritage State Park -- recycled paint
- Franklin Housing Authority --recycled paint
- Gloucester Housing Authority -- recycled paint
- Malden Housing Authority - recycled paint
- North Central Correctional Center -- recycled rubber flooring
- Southeast Correctional Center -- recycled rubber matting
- Walker Elementary School -- plastic lumber playground equipment
- Westfield State College -- plastic lumber fencing

IV. PROCUREMENT PROCESS

The procurement process was coordinated by OSD, the state's central procurement agency. Different procurement methods were used depending on the product and the quantity targeted. A Request for Response (RFR) was used to solicit vendors for products that were not on state contracts. An RFR was sent out for plastic lumber decking and fencing, chock blocks, rubber matting and floor tiles, and playground equipment (as well as a few other products that were ultimately not purchased due to lack of funds). On average, 3 different vendor quotes were received for each product. Vendors were chosen on the basis of cost, ability to conform to specifications, and references. RFRs were not used to procure paper and paint, as these were already on state contract.

Specifications were written by OSD in consultation with participating agencies. In writing the specifications, OSD aimed to identify products of equivalent quality to their traditional counterparts, yet which were environmentally preferable.

Most products purchased under the program were paid for in full through OSD's pilot purchase fund provided by EOEA, but some of the more expensive items had cost sharing provisions. For example, OSD and the city of Taunton shared the cost of the playground equipment for the Walker School. In the case of the Waltham footbridge, OSD purchased the plastic lumber, and the city of Waltham provided the labor and hardware necessary to complete the project.

V. PRODUCT EVALUATION

Products purchased through the program were tested over a number of months to determine both initial and long-term performance. In January of 1998, OSD sent out evaluation forms to participants. The same evaluation form was used to assess satisfaction with both the products and the program in general. A total of 48 evaluations were distributed, and 36 were returned, for a response rate of 75%. The following are summaries of responses received that relate specifically to product evaluation (please see attachment for exact statistics).

hand and foot basins

These recycled plastic basins were originally intended for soaking basins at medical facilities, but none of the recipients found them suitable for this purpose. Most recipients commented that the basins were too flimsy, and that they sagged when filled with water and spilled easily. Some recipients found alternative uses for the basins, such as storage containers, but overall satisfaction was low.

chock blocks

Response to the recycled plastic chock blocks was moderately positive. Recipients generally gave the product high ratings in the initial use evaluation, but expressed concern about performance over time. One common complaint was that a medium sized block was needed because the large and small blocks did not fit all vehicles. Another complaint was that these chock blocks slipped more than their wood counterparts. Nevertheless, a large majority of recipients indicated that they would recommend this product to others.

copy paper and envelopes

An overwhelming majority of recipients indicated a high degree of satisfaction with recycled paper and envelopes. They noted that the recycled paper products were virtually identical to virgin paper in appearance and performance. One recipient had jamming problems, and another reported that the quality of the copies deteriorated over time, but it was unclear if these problems were related to the paper or the copy machine.

recycled paint

Response to recycled paint was quite mixed. Two recipients of interior paint indicated that the paint did not cover sufficiently, that an extra coat was needed, and that the color was a different shade than requested. However, another recipient of interior paint indicated a high level of satisfaction with the product, and the recipient of exterior paint was also very satisfied.

plastic lumber

Two participants received dimensional plastic lumber. One recipient used the plastic lumber to construct a footbridge over the Charles River, and the other used the plastic lumber for outdoor stairs and for fencing. Both noted that the plastic lumber was aesthetically pleasing, easy to work with, and durable. Both said that they would purchase the product again.

rubber matting and flooring

Two participants received rubber flooring; one received gymnasium style recycled rubber flooring and the other received matting. Both were very satisfied with the products, and one of the participants expressed an interest purchasing more of the product, even if he bore the full cost.

playground equipment

One elementary school received playground equipment made from a blend of recycled HDPE plastic. The evaluation of the playground was overwhelmingly positive, with the highest rating for all but one evaluation criterion.

** see Summary of Recipients and Products for details

VI. PROGRAM EVALUATION

- The majority of Pilot Purchase participants indicated that they were “very satisfied” with the program in general. To a certain degree, participants seemed to correlate product satisfaction with program satisfaction. Most participants who gave a favorable product evaluations noted that they were “very satisfied” with the program, while participants who were less than satisfied with their products indicated that they were only “somewhat satisfied” with the program.
- Almost every recipient indicated an interest in participating in future pilot purchases, and many gave examples of specific products that they would like to test. These examples were compiled into a list of product categories that OSD is using as a tool to determine FY 1998 pilot purchases.
- The large number of end users in FY 1997 yielded a good quantity of data and opinions, across and within product categories. The use of distributors for some products made feasible the identification and service of many users. An accurate assessment of both tested products and the program was made possible by the multitude of participants. Furthermore, the educational mission of the program benefited from the large number of end users.
- As a result of the program, state and municipal facilities received practical education on environmentally preferable products and their availability. Judging by the participants’ positive response to the program, and eagerness to participate in the future, we can infer that the traditional resistance to using recycled and non-traditional products decreases with exposure.

** see Evaluation Summaries for details

VII. RECOMMENDATIONS

The evaluation of FY 1997 Pilot Purchase Program is strongly positive. The program appears to be succeeding in its dual goal of testing environmentally preferable products while simultaneously increasing acceptance to their use. Due to the program’s efficacy in attaining its ambitious goals, we recommend that EOEa continues funding for future pilot purchases.

Of course, no program is perfect, and there are a number ways in which the Pilot Purchase Program can be improved to capitalize on its existing success. Specific recommendations include:

- 1) The product evaluation component of the program works best with either a multitude of participants using each product or a few participants using a product steadily over time. For less expensive products, such as paper products, a minimum of four or more end users should be required to yield meaningful product evaluations. For costly products or products that are best tested with prolonged and diligent use, it is preferable to concentrate the test with only a few recipients committed to the project.
- 2) Although the continued use of distributors is recommended, OSD should establish in advance the responsibilities and expectations that go with this assignment. Specifically, the distributor should not only identify and deliver the products, but should keep OSD informed of their progress and provide OSD with accurate listings of end users and the quantity and types of products they received. Furthermore, it would be ideal for the distributor to work with the manufacturer to implement feedback gathered from the product evaluations. OSD should communicate all responsibilities and expectations to potential distributors prior to any commitments. This will not only ensure a more organized program implementation, but will make it immensely easier to evaluate the program.
- 3) Future Pilot Purchase efforts should expand the use of cost sharing for products that are either very expensive or have gained a modicum of acceptance. Cost sharing occurred in FY 1997 for the very expensive items, but not for products like recycled paper and envelopes, where cost sharing is warranted based on the level of acceptance that recycled paper products have attained. In addition to cost sharing, OSD should attempt to leverage additional purchases of tested products in the form of future commitments to purchase tested products. These commitments should be contingent upon a recipient's high level of satisfaction with the product.
- 4) OSD should work with vendors and product users to improve products that received mixed evaluations, such as recycled paint and plastic lumber chock blocks, and to test these products in future pilot purchases. Quality improvements will help to overcome resistance to environmentally preferable products and will aid both agencies and vendors in expanding opportunities for widespread use.
- 5) The planning, implementation, and evaluation of this program is a complicated and time consuming process that requires too many labor hours for only two people to handle on a part-time basis. Hence, it is recommended that funding for additional personnel and/or interns is appropriated on an on-going basis. This will ensure that all phases of the program are carried out in an organized and thorough manner, and will promote the program's long-term stability and success.
- 6) OSD should create a one page marketing flyer with information about the products tested and their evaluations. Distribution of this type of flyer would be an efficient way to spread information about the pilot purchase learning experience to agencies and municipalities.
- 7) OSD should send a follow up survey to participants in subsequent fiscal years to gather information on how many participants bought more of the tested products on their own. This type of survey will be helpful in assessing the long-term impact of the pilot purchase program on "green" buying behavior. Furthermore, OSD will investigate the possibility of putting products that tested well and that are in demand onto state contracts. Such products could include plastic lumber, rubber flooring, and chock blocks.

ATTACHMENT A - SPENDING SUMMARY

SUMMARY OF SPENDING BY CATEGORY	
PRODUCT CATEGORY	PRODUCT COST
RECYCLED PLASTIC BASINS	\$1,031.66
PLASTIC LUMBERCHOCK BLOCKS	\$2,080.00
RECYCLED PAPER AND ENVELOPES	\$1,013.90
RECYCLED PAINT	\$1,615.90
PLASTIC LUMBER DECKING AND FENCING	\$18,753.81
RECYCLED RUBBER MATTING AND FLOORING	\$9,421.00
PLASTIC LUMBER PLAYGROUND EQUIPMENT	\$6,000.00
TOTAL	\$39,916.27
*total cost of playground was \$14,496 with \$6,000 billed to OSD and the rest to the Walker School	

ATTACHMENT B - SATISFACTION WITH PILOT PURCHASE PROGRAM

	Very	Somewhat	Not At All
Satisfaction with Program	17	12	0
% of Total	57%	43%	0%

ATTACHMENT C - SUMMARY OF RECIPIENTS AND PRODUCTS

RECIPIENT	PRODUCT
Chelsea Soldiers Home	RECYCLED PLASTIC HAND AND FOOT BASINS
Lemuell Shattuck Hospital	"
Tewksbury Hospital	"
Holyoke Soldiers Home	"
East Cambridge Health Center	"
Natick DPW	PLASTIC LUMBER CHOCK BLOCKS
Cambridge DPW	"
Concord DPW	"
Chelsea DPW	"
Chicopee DPW	"
Sturbridge DPW	"
Mass. Highway Department	"
Center for Ecological Technologies	"
Metropolitan District Commission	"
State Police	"
Mass. Port Authority	"
Crapo Hill Landfill	"
Town of East Brookfield	RECYCLED COPY PAPER AND ENVELOPES
Town of Leicester	"
Town of Sturbridge	"
Town of Braintree	"
Town of Barre	"
Town of Hardwick	"
Town of Warren	"
Town of Monson	"
Town of New Braintree	"
Barre Elementary School	"
Brookfield Elementary School	"
Burgess Elementary School	"
Hardwick Elementary School	"
Memorial School	"
New Braintree Elementary School	"
West Brookfield Elementary School	"
Leicester Recycling Committee	"
DEM Harold Parker State Forest	RECYCLED PAINT
DEM Lawrence Heritage State Park	"
Malden Housing Authority	"
Gloucester Housing Authority	"
Franklin Housing Authority	"
City of Waltham	PLASTIC LUMBER DECKING
Westfield State College	PLASTIC LUMBER FENCING
North Central Correctional Center	RECYCLED RUBBER FLOORING
Southeast Correctional Center	RECYCLED RUBBER MATTING
Walker School, Taunton	PLASTIC LUMBER PLAYGROUND EQUIPMENT

ATTACHMENT D - DETAILED PRODUCT EVALUATIONS

EVALUATION SUMMARY CHELSEA CENTER- HAND AND FOOT BASINS

**7 EVALUATIONS SENT
4 EVALUATIONS RECEIVED**

KEY

Excellent=5
Good=4
Average=3
Below Average=2
Poor=1

QUESTION	# OF RESPONSES/QUESTION						
	Excellent	Good	Average	Below Avg.	Poor	N/A	Avg. Rank
Range of Options			1		3		1.5
% of Total			25%		75%		
Appearance			1	2	1		1.67
% of Total			25%	50%	25%		
Ease of Assembly and Installation	1			2	1		2.3
% of Total	25%			50%	25%		
Durability				1	3		1.25
% of Total				25%	75%		
Overall Satisfaction			1	1	2		1.75
% of Total			25%	25%	50%		
Comparison to Traditional Product					4		1.0
% of Total					100%		
Customer Service			1		3		1.5
% of Total			25%		75%		

	Yes	No	Not Sure
Recommend Product		4	
% of Total		100%	
Purchase Again		4	
% of Total		100%	
Interest in Future Program Participation	2	2%	
% of Total	50%	50%	

**EVALUATION SUMMARY
CHELSEA CENTER- CHOCK BLOCKS**

**12 EVALUATIONS SENT
10 EVALUATIONS RECEIVED**

KEY

Excellent=5

Good=4

Average=3

Below Average=2

Poor=1

QUESTION	# OF RESPONSES/QUESTION						
	Excellent	Good	Average	Below Avg	Poor	N/A	Avg. Rank
Range of Options	1	4	4			1	3.7
% of Total	10%	40%	40%			10%	
Appearance	3	5	1			1	4.2
% of Total	30%	50%	10%			10%	
Ease of Assembly and Installation	2	2	1			5	4.2
% of Total	20%	20%	10%			50%	
Durability	2	3	2	1	1	1	3.4
% of Total	20%	30%	20%	10%	10%	10%	
Overall Satisfaction	2	3	2	1	1	1	3.4
% of Total	20%	30%	20%	10%	10%	10%	
Comparison to Traditional Product	1	5	2			2	3.9
% of Total	10%	50%	20%			20%	
Customer Service	1	2				7	4.3
% of Total	10%	20%				70%	

	Yes	No	Not Sure
Recommend Product	8	1	1
% of Total	80%	10%	10%
Purchase Again	7	2	1
% of Total	70%	20%	10%
Interest in Future Program Participation	10	0	
% of Total	100%		

EVALUATION SUMMARY
SCRAM- RECYCLED COPY PAPER AND ENVELOPES

17 EVALUATIONS SENT
11 EVALUATIONS RECEIVED

KEY

Excellent=5
 Good=4
 Average=3
 Below Average=2
 Poor=1

QUESTION	# OF RESPONSES/QUESTION						
	Excellent	Good	Average	Below Avg	Poor	N/A	Avg. Rank
Range of Options	6	2	1			2	4.6
% of Total	54%	18%	90%			18%	
Appearance	8	1	2				4.5
% of Total	73%	9%	18%				
Ease of Assembly and Installation	4	1	1		1	4	4
% of Total	36%	9%	9%		9%	36%	
Durability	4	3	1		1	2	4
% of Total	36%	27%	9%		9%	18%	
Overall Satisfaction	4	3	1		1	2	4
% of Total	36%	27%	9%		9%	18%	
Comparison to Traditional Product	4	4	1			2	4.3
% of Total	36%	36%	9%			18%	
Customer Service	3					8	5
% of Total	27%					73%	

	Yes	No	Not Sure
Recommend Product	7	3	1
% of Total	64%	27%	9%
Purchase Again	9	1	1
% of Total	82%	9%	9%
Interest in Future Program Participation	11	0	
% of Total	100%		

**EVALUATION SUMMARY
RECYCLED PAINT**

**5 EVALUATIONS SENT
4 EVALUATIONS RECEIVED**

KEY

Excellent=5
Good=4
Average=3
Below Average=2
Poor=1

QUESTION	# OF RESPONSES/QUESTION						
	Excellent	Good	Average	Below Avg	Poor	N/A	Avg. Rank
Range of Options	1			2		1	3
% of Total	25%			50%		25%	
Appearance	2	1	1				4.25
% of Total	50%	25%	25%				
Ease of Assembly and Installation	2		1	1			3.75
% of Total	50%		25%	25%			
Durability	1	1		2			3.25
% of Total	25%	25%		50%			
Overall Satisfaction	2			2			3.5
% of Total	50%			50%			
Comparison to Traditional Product	2			2			3.5
% of Total	50%			50%			
Customer Service	2					2	5
% of Total	50%					50%	

	Yes	No	Not Sure
Recommend Product	2	2	
% of Total	50%	50%	
Purchase Again	2	1	1
% of Total	50%	25%	25%
Interest in Future Program Participation	3	1	
% of Total	75%	25%	